

$^{11}\text{B}(\text{p},\text{n}): \text{res}$  **2017Ke05**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, J. E. Purcell and C. G. Sheu		NP A968, 71 (2017)	1-Jan-2017

- 1969Mo32:  $^{11}\text{B}(\text{p},\text{n})$  E not given, measured thresholds.
- 1969Ra36:  $^{11}\text{B}(\text{p},\text{n})$  E $\approx$ 20 MeV, surveyed quasi-elastic  $\sigma(\theta)$  data.
- 1970Cl01:  $^{11}\text{B}(\text{p},\text{n})$  E=30,50 MeV, measured  $\sigma(E, E_N, \theta)$ .
- 1972Mo41:  $^{11}\text{B}(\text{p},\text{n})$  E=24.5 MeV, measured analyzing power( $\theta$ ).
- 1974Pe04:  $^{11}\text{B}(\text{p},\text{n})$  E<6 MeV, measured  $^{11}\text{C}$  yield.
- 1976Hi11:  $^{11}\text{B}(\text{pol. p},\text{N})$  E=16.3,21.3,26.5 MeV, measured transverse polarization transfer coefficient.
- 1976Li08:  $^{11}\text{B}(\text{pol. p},\text{N})$  E=7-15 MeV, measured transverse polarization transfer coefficients.
- 1978Va12:  $^{11}\text{B}(\text{p},\text{n})$  E=3-4.9 MeV, measured  $\sigma(E, E_N, \theta)$ .  $^{12}\text{C}$  level deduced J,  $\pi$ .
- 1979Ba68:  $^{11}\text{B}(\text{p},\text{n})$  E=1 GeV, measured  $\sigma(E_N, \theta)$ . Deduced dependency of quasielastic neutron production on mass.
- 1980Ra16:  $^{11}\text{B}(\text{p},\text{n})$  E=3-6 MeV, measured absolute  $\sigma(E)$ .  $^{12}\text{C}$  deduced resonances, J,  $\pi$ , T.
- 1981An16:  $^{11}\text{B}(\text{p},\text{n})$  E=10.9-27.5 MeV, measured  $\sigma(E)$ , thick target yields.
- 1981Ba22:  $^{11}\text{B}(\text{p},\text{n})$  E=4-12 MeV, measured thick target yields,  $\sigma(E)$ .
- 1981Ho13:  $^{11}\text{B}(\text{p},\text{n})$  E=5.4-7.5 MeV, measured  $\sigma(E, \theta)$ . Deduced direct, resonance effects.  $^{12}\text{C}$  deduced resonances,  $\Gamma$ , J,  $\pi$ .
- 1985Gr09:  $^{11}\text{B}(\text{p},\text{n})$  E=16-26 MeV, measured  $\sigma(E_N)$ ,  $\sigma(\theta)$ . Deduced residual production  $\sigma$ . DWA analysis.
- 1985Ku13:  $^{11}\text{B}(\text{p},\text{n})$  E=9.1 MeV, measured absolute thick target  $\gamma$  yields.
- 1985Sc08:  $^{11}\text{B}(\text{p},\text{n})$  E=13.7-14.7 MeV, measured absolute  $\sigma(\theta)$  vs E.
- 1986Ai04:  $^{11}\text{B}(\text{p},\text{n})$  E<14.7 MeV, measured  $\sigma$ , residuals yields.
- 1986Mu08:  $^{11}\text{B}(\text{p},\text{n}), (\text{pol. p},\text{N})$  E=12.77-17.22 MeV, measured  $\sigma(\theta)$ , analyzing power vs  $\theta$ .
- 1987Ra23:  $^{11}\text{B}(\text{p},\text{n})$  E=7-9 MeV, measured absolute thick target  $\gamma$  yield, relative neutron yield.
- 1988Ka30:  $^{11}\text{B}(\text{p},\text{n})$  E=15.8,18.6 MeV, measured  $\sigma(\theta)$ . Deduced residual nuclei vertex constants.
- 1989Ra09:  $^{11}\text{B}(\text{p},\text{n})$  E=492 MeV, measured  $\sigma(\theta, E)$ . Deduced unit  $\sigma$ (ratio).
- 1990Ta15:  $^{11}\text{B}(\text{p},\text{n})$  E=160-795 MeV, measured  $\sigma(E_N, \theta=0^\circ)$ .
- 1994Ga49:  $^{11}\text{B}(\text{p},\text{n})$  E=1 GeV, analyzed  $\sigma(\theta)$ , mass dependences. Deduced resonance phenomena related features.
- 1994Wa22, 1994Ra23, 1995Ya12:  $^{11}\text{B}(\text{p},\text{n}), (\text{pol. p},\text{N})$  E=186 MeV, measured  $\sigma(\theta, E_N)$ , polarization transfer coefficient, analyzing power vs  $\theta$ .
- 1995Wa16:  $^{11}\text{B}(\text{pol. p},\text{N})$  E=295 MeV, measured  $\sigma(\theta)$ , polarization coefficient vs excitation energy. Deduced spin-flip strength, effective tensor interactions related features.

 $^{12}\text{C}$  Levels

E(level) <sup>†</sup>	$\Gamma$	Comments
$18.40 \times 10^3$	44 keV	
$18.85 \times 10^3$	92 keV	
$19.17 \times 10^3$	458 keV	
$19.42 \times 10^3$	46 keV	
$19.70 \times 10^3 \ddagger$	183 keV	
$19.88 \times 10^3$	92 keV	
$20.25 \times 10^3 \ddagger$	156 keV	
$20.60 \times 10^3 \ddagger$	174 keV	
$20.99 \times 10^3 \ddagger$	367 keV	
$21.48 \times 10^3 \ddagger \#$	513 keV	
$21.8 \times 10^3 \ddagger$	$\Gamma$ : Broad.	
$22.37 \times 10^3 \ddagger$	312 keV	
$22.64 \times 10^3 \ddagger \#$	330 keV	
$23.05 \times 10^3 \ddagger \#$	60 keV	
$23.52 \times 10^3 \ddagger \#$	348 keV	

Continued on next page (footnotes at end of table)

---

 $^{11}\text{B}(\text{p},\text{n}): \text{res}$     **2017Ke05 (continued)**

---

 $^{12}\text{C}$  Levels (continued)

$E(\text{level})^\dagger$	$\Gamma$	$E(\text{level})^\dagger$	$\Gamma$
$23.89 \times 10^3 \ddagger @$	165 keV	$24.93 \times 10^3 \#$	917 keV
$24.2 \times 10^3$		$25.25 \times 10^3 \ddagger @$	165 keV
$24.44 \times 10^3 \ddagger @$	101 keV	$25.96 \times 10^3 \ddagger$	403 keV
		$26.85 \times 10^3$	275 keV

<sup>†</sup> See references listed in (2017Ke05).

<sup>‡</sup> Resonant in  $n_0$ .

<sup>#</sup> Resonant in  $n_1$ .

<sup>@</sup> Resonant in  $n_2$ .